

## PSZMP Zooplankton Equipment Maintenance

### NETS:

**1) Periodically check for holes-** Carefully look over all the mesh on your nets to make sure there are no holes or slashes. If you do find a small hole, you can use some silicone to seal it up. Something like this should work: <http://www.amazon.com/00688-Household-Waterproof-Adhesive-2-8-Ounce/dp/B000KE4PBQ> . **CHECK Cod end mesh every time you use it to make sure mesh isn't peeling off and there are no openings.** This cod end would need to be replaced or fixed with PVC glue.



If the hole seems too big for that to work, you can sew it with nylon thread (if it's a slit) or put silicone around the edge of a new piece of mesh to glue over the hole. I can send you a piece of mesh if you need it.

**2) Store vertical net with flow meter down-** After you're done with your vertical net and you set it down, make sure that the metal flow meter is face down on the deck (net opening faces down) so that it won't rub on the net and possibly wear holes into it.

**3) Don't step on the nets-** Make sure to let any new people/volunteers know to be very careful with the nets and to not step on them.

**4) Rinse with fresh water-** Rinse well with fresh water after each cruise. Periodically power-washing the net (being careful of flow meters) may help dislodge phytoplankton buildup. Soaking the net right after field use, then rinsing it again can help prevent gunk buildup.

**5) Store equipment carefully-** Don't store nets and flow meters near anything that may be abrasive, corrosive, or that may smash against them. Try not to allow stiff folds/creases to form in the nets.

## **FLOW METERS:**

1) **Check spinning**- Please periodically check both of your flow meters to see if they seem to be spinning at their normal rate. We've had a couple (of each kind) get a little sticky. I can send you a video of a new one spinning if you'd like. The TSK (vertical) prop spins a lot faster than the SeaGear one. The TSK dials shouldn't be very hard to move. You can try to loosen the dials by sticking the end of a knife or razor blade into the slit on the end of each dial and turning them a little bit. Let me know right away if you're having trouble with either of your flow meters.

2) **Rinse with fresh water**- Rinse flow meters off very well with fresh water after each cruise.

## **Tips from manufacturers for flow meter maintenance:**

### **TSK:**

-If needed, use a marine or silicone lubricant on the gears opposite the dials and the gear in the center by the propeller.

-If a dial is sticky, you can try to loosen it by using the edge of a knife to pry open the small slit on the edge of the dial. Opening this a little bit may loosen it, and you can use pliers to squeeze the slit smaller to tighten it.

### **SeaGear:**

-The flow meters should be rinsed with fresh water after use. This is the reason behind the easy to disassemble extensive pin design (to rinse the counting block inside).

-They can be boiled in fresh water for 10 minutes (while disassembled), or they can be washed with a light silicone emulsion.

-To disassemble, the rotating pin should be removed and the nose cone assembly removed. (If you push down on the rubber piece where one of the lanyards connects, you'll see how to unhook it). Then the counting block is the one to be sprayed/greased. It could also be pulled out for inspection or lubricating. Any silicone spray will work. Do not use much silicone grease however as they will seep.